

and so closely united to each other as well as to the first soft ray, as to be scarcely obvious except upon dissection; all the soft rays, except the first, branched. Space between the anal and caudal not a tenth part of the whole length. Caudal slightly notched, or hollowed out, with rows of scales between the rays. Pectorals pointed, about three-fourths the length of the head, with the seventh and eighth rays longest; rows of scales at the base between the rays: in their axillæ a somewhat projecting vertical scale or lamina, as in the last species. Ventrals immediately beneath the pectorals, also pointed, but shorter.

COLOUR.—“Above, and the fins, obscure greenish; sides obscure coppery, passing on the belly into salmon-colour. Pectorals edged with dull blue. Iris yellowish brown: pupil black-blue.”—D.—The skin has dried to a nearly uniform brown.

Habitat, Chatham Island, Galapagos Archipelago.

I feel but little hesitation in referring this species, which is one of the many new ones obtained by Mr. Darwin in the Galapagos Archipelago, to the genus *Latilus*. The absence of vomerine and palatine teeth requires it to be placed, according to Cuvier's views, among the *Scienidæ*; in which family, there is no other group besides *Latilus*, to which it makes any approach. It agrees with that genus in its general form, and in many of its particularities; it has the same form of snout, mouth, maxillary, and dentition; the same scaly lamina in the axilla of the pectorals; the same long undivided dorsal and anal fins, with only two very small anal spines, so closely united to the first soft ray as to be easily overlooked. But it may be at once distinguished from the *L. argentatus* and the *L. doliatus*, the only two species described by Cuvier and Valenciennes in the body of their work, by its much more numerous soft rays in the dorsal and anal fins. From the *L. jugularis* last described, which resembles it in this respect, it differs in its thoracic ventrals, shorter head, naked snout and suborbital, and notched caudal: the profile also falls less obliquely. There is only one specimen in the collection, a dried skin and rather injured.

HELIASES CRUSMA. Val.

Heliases Crusma, Cuv. et Val. Hist. des Poiss. tom. ix. p. 377.

FORM.—Oval, very much compressed. Back considerably elevated, particularly at the nape, whence the profile descends very obliquely, and, with the exception of a slight concavity before the eyes, in nearly a straight line. Greatest depth at the commencement of the dorsal, equalling nearly half the entire length, caudal excluded. Head contained four and a half times in the same. Snout short: mouth small, a little protractile: lower jaw rather the longest. A narrow

band of velutine teeth in each jaw, with the outer row in fine card; these last longest and strongest in front. Eyes large; their diameter nearly one-third the length of the head. Sub-orbitals forming a narrow curved band beneath the eyes, and covered by a row of scales. Nostrils with only a single, small, round aperture. Preopercle with the ascending margin vertical, not quite rectilineal, inclining slightly inwards towards the angle, which is rounded. Opercle, taken together with the subopercle, very regularly curved, the margin describing nearly a semicircle, with one flat point to terminate the osseous portion; its height double its length.

The whole of this fish, including every part of the head, except the lips and maxillary, is covered with scales, which extend on to the vertical fins as in *Glyphisodon*: those on the fins and upper part of the head and snout are very small, but those on the gill-covers and body very large: about twenty-six or twenty-seven in a longitudinal line from the gill to the base of the caudal, and fourteen or fifteen in a vertical line: one taken from about the middle of the side is oblong, the breadth exceeding the length, with the anterior margin rounded, and the free portion finely dotted and very minutely ciliated, the concealed portion cut square, with a fan of eight or ten striæ not meeting at the centre, and terminating at the basal margin in as many crenations. The lateral line commences at one-fourth of the depth, but, from the fall of the dorsal line posteriorly, the distance between these two lines diminishes as the former advances: the lateral line terminates beneath the soft portion of the dorsal fin altogether.

Fins almost exactly similar to those of the *Glyphisodon saxatilis* and *Heliases insolatus*, as described and figured in the “Histoire des Poissons.” The fourth and fifth spines in the dorsal longest, equalling one-fourth of the depth; of the soft rays the third, fourth, and fifth are longest. First anal spine only one-third the length of the second, which is itself rather shorter than the soft rays; and these last appear longer than in the *H. insolatus*. Caudal more forked than crescent-shaped, the depth of the fork equalling nearly half the length of the fin, which is itself one-fourth the entire length of the fish. Axillary scales of the pectorals and ventrals as in *H. insolatus*.

B. 6; D. 13/12; A. 2/12; C. 15, & 4 short; P. 21; V. 1/5.

Length 8 inches.

COLOUR.—“Above lead-colour, beneath paler.”—D. In spirits, it appears of a deep brownish olive on the back and upper part of the sides, passing into dull golden yellow on the lower part of the sides and abdomen, where, however, the scales are still faintly edged with the former colour. Fins dark.

Habitat, Valparaiso, Chile.

This species, as M. Valenciennes observes, is so extremely similar to the *H. insolatus*, that at first sight, it would hardly be distinguished from it. The only differences appear to consist in the form of the caudal, which is forked, not crescent-shaped as in the species just mentioned, and in the greater length of